LCN®

Door Closer and Power Operator Condensed Catalog



Ingersoll Rand
Security Technologies

lcn.ingersollrand.com LCN®

THE POETRY BEHIND CLOSING A 75-POUND DOOR

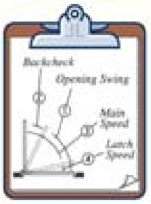
IN 5.7 SECONDS

or

WHY WE MAKE LOUSY GUESTS AT COCKTAIL PARTIES



DOOR CONTROL DUMBED DOWN (NO OFFENSE)



(1) During the opening swing, the LCN closer allows for an easy opening, the type Hollywood producers dream of.

(2) At the end of the opening swing, LCN backcheck prevents the door from slamming into the stop (ouch!).

(3) Through the long closing arc, LCN closers maintain a uniform, reasonable speed. If only they'd do the same for our driving.

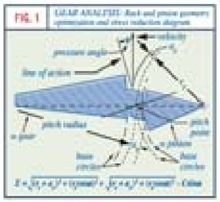
(4) The latching arc allows the door to close quietly and firmly. Shhhhh-weet!

We admit it, we're an odd bunch. We eat, sleep and breathe door control. We're control freaks, but in a good way. Because to us, door control is one of the most pressing issues facing society today. Okay, maybe not society, but at least building security and safety. Door closers create the first impression of a facility and must be attractive without compromising quality – like a beauty pageant winner who is actually good at the talent section. So how has LCN been in control of door control for over 125 years? We thought you'd never ask.

MORE PEACE OF MIND THAN PIECE OF METAL

Our commitment is to provide each of our customers with the best door control possible. It's the reason we use only the best cast iron and forged steel available. They deliver exceptional value and an impressively long service life. That means you won't ever have to worry about door control at all (even though it really is an altogether fascinating subject). We labor over the complex physics and meticulous construction so you can rest easy knowing that your facility will always operate properly – just like it should.

AND NOW FOR SOMETHING THAT MAKES A TAX RETURN SEEM DOWNRIGHT SIMPLE



Chances are, you have not seen anything this brain-numbing since tenth-grade chemistry. But this little equation, a mere warm-up for our team of engineers, is the basis behind the precision of LCN closers. It translates to: *Your door opens and closes perfectly every single time.* Now don't go thinking you can take the equation and start your own door closer company. If you happen to have the brain power to understand it, you are likely already happily employed here at LCN.

BUT SO WHAT??!

Why should you care that LCN is a passionate team of rabid door control fanatics? Perhaps you should spend the afternoon watching our closers perform in places like hospitals, office buildings and high schools *(Figure 2)* all over the world. Maybe then you'd understand why we put our closers through a grueling ten-million-cycle test. And who knows? You just might discover the beauty of door closers and become a control freak too.



Ingersoll Rand
Security Technologies







Innovations that last.

LCN sets industry standards for quality, durability and innovation in premium door closers. Founded in 1926, LCN became a division of Ingersoll Rand in 1974 and today offers a broad line of products, including heavy-duty closers for interior and exterior doors, with fire/life safety closers/holders and high security manual closers available in most configurations. LCN also provides power operators and closers for use by people with physical challenges. These innovative door closers offer a wide range of applications in schools, healthcare facilities, sports arenas, government and commercial settings.

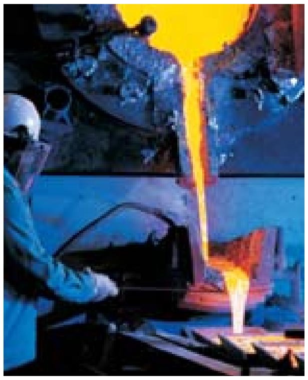
TABLE OF CONTENTS

STANDARD POWDER COATED FINISHES

Description	BHMA
Aluminum – AL	689
Dark Bronze – DKBRZ	695
Tan – TAN	692
Statuary – STAT	690
Light Bronze – LTBRZ	691
Black – BLACK	693
Brass – BRASS	696

The Best Closers. The Best Value.

The LCN formula for success



Cast Iron
Heavy-duty cast iron. There isn't a stronger, harder, more reliable material for door closers that are expected to deliver millions of cycles. Cast iron is more compatible with high grade steel components and is more resistant to the wear of millions of opening/closing cycles.



10 Million Cycles
Why do some hardware professionals claim that LCN stands for "Last Closer Needed?" Only LCN closers were put through grueling independent cycle tests and only LCN exceeded 10 million cycles.



Forged Steel Arms
The closing power and control generated within LCN closers is transferred to the door through forged steel arms. Forged steel arms have greater strength, better appearance and less bulk.



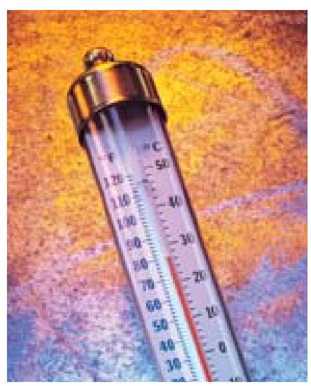
Chrome Silicon
Many closer manufacturers use less expensive oil-tempered springs, but LCN engineers know that such a spring loses up to 20% of its power after a few thousand cycles. The chrome silicon springs used in LCN closers have the strength to perform beyond 10 million cycles.



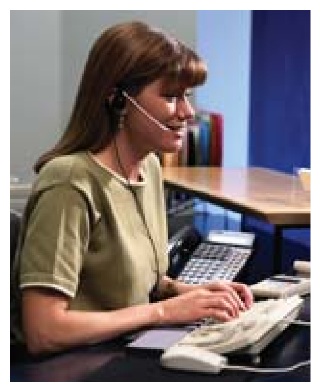
Heat-Treated
LCN forged steel pinions have larger, stronger teeth and are double heat-treated for the greatest possible strength on the shaft. Heat treating makes the pinion harder, better able to resist wear after years of service and results in less stress on the cylinder.



Customized Products
When a standard door closer won't do the job, there is only one proven, reliable source for special solutions—LCN. With over 3,000 special templates on file, LCN can provide a door control solution for one-of-a-kind doors such as vault, balanced, over-sized and arch doors.



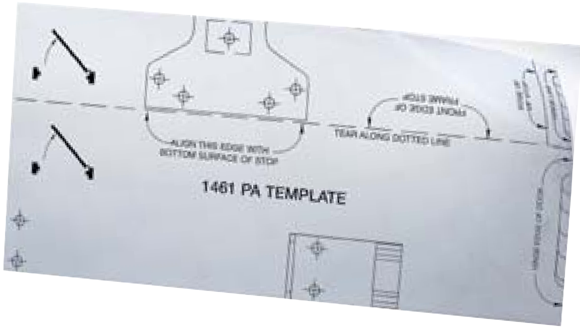
All-Weather Fluid
LCN uses a special formula hydraulic fluid that acts as an insulator to keep closer components working smoothly. This unique all-weather, fire-resistant hydraulic fluid eliminates the need for seasonal adjustments.



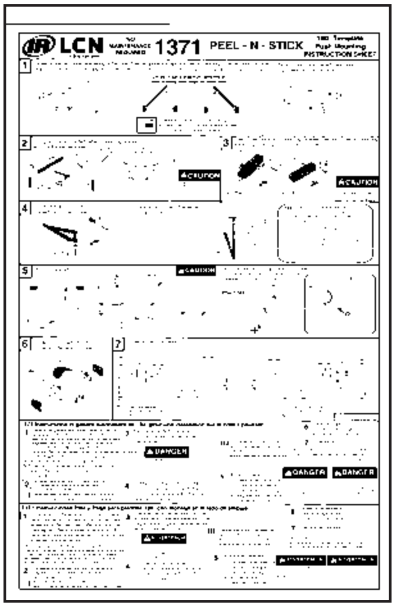
Customer Service
At a time when machines are picking up more and more customer calls, real people are answering the phones at LCN. Every member of our customer service staff is trained and qualified to assist you with orders, closer selection and scheduling.

LCN Fast and Accurate Installation

Installing and adjusting doors can be difficult and time consuming. A closer not installed properly can fail prematurely damaging the door, frame and hardware. Poor performance from an incorrect installation can also compromise building security and safety. LCN Fast and Accurate installation features enable LCN closers to be installed right the first time. Available on 4040, 4010, 1460 and 1370 Series Closers.



Peel & Stick Templates
Use to quickly install closers in the right place so they perform properly



Peel & Stick Instructions
Hang it on the door for easy reference during installation



LCN FAST™ Power Adjusts
A revolutionary visual indicator for Spring Power Adjustment



Self-Reaming & Tapping (SRT) Fasteners
Reduces drilling and tapping time

LCN No-Leak Closers

This No Leak™ 10 year guarantee is covered by the LCN standard warranty against defects in material and workmanship, and is subject to the specific requirements, exclusions, limitations and instructions for warranty returns included in the LCN standard warranty. See the LCN standard warranty for details. Additionally, see the product installation instructions to ensure proper installation.



4010/4020/4110/4010T/4020T/4110T SERIES CLOSERS



4110 EDA Shown

LCN's best performing heavy-duty closer is designed specifically for institutional and other rugged high traffic applications.

Features & Benefits

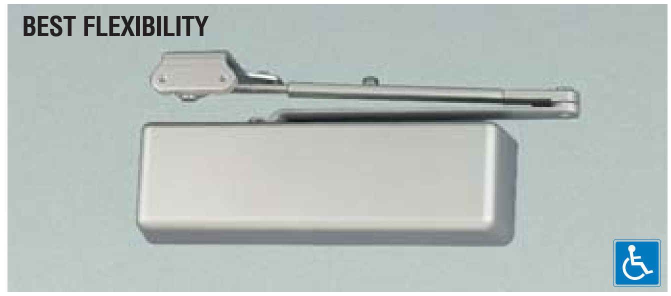
- Exceeded 10 million cycles in independent testing
- Cast iron cylinder offers proven durability
- Forged steel main arm
- Double heat-treated steel pinion
- Handed for either right or left swinging door
- FAST™ power adjust allows accurate on-site spring power adjustment to meet the condition of the opening (4010/4020/4110 only)
- Fast and accurate installation (4010/4020/4110 only)
- Extra Duty Arm (EDA) is standard on 4110
- UL/cUL listed for self-closing, fire-rated doors without hold open
- Sized cylinders for interior doors to 5´0˝ (1524mm) and exterior doors to 4´0˝ (1219mm)
- Non-sized cylinder adjustable for interior doors to 4´6˝ (1372mm) and exterior doors to 3´6˝(1067mm)
- Closers to mount hinge side, top jamb or parallel arm
- Corner brackets available (4010 only) - requires opposite hand closer
- Size one cylinder meets ADA requirements on 3´0˝ (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Delay Action provides additional adjustable closing time (4010/4020/4110 only)
- Advanced Variable Backcheck allows earlier backcheck control on potentially abusive installations (available on 4110 series only)
- Metal cover available
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

= Complies with ADA Accessibility Guidelines

4040/4040T SERIES CLOSERS



P4040 Shown

The 4040 is LCN's most flexible heavy duty closer designed for institutional and other rugged high traffic applications.

Features & Benefits

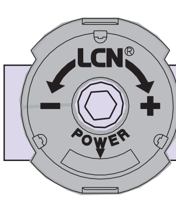
- Exceeded 10 million cycles in independent testing
- Cast iron cylinder offers proven durability
- Forged steel main arm
- Double heat-treated steel pinion
- Non-handed
- FAST™ power adjust allows accurate on-site spring power adjustment to meet the condition of the opening (4040 only)
- Fast and accurate installation (4040 only)
- UL/cUL listed for self-closing, fire-rated doors without hold open
- Non-sized cylinder is adjustable for interior doors to 5´0˝ (1524mm) and exterior doors to 4´0˝ (1219mm)
- Closers to mount hinge side, top jamb or parallel arm
- Size one cylinder meets ADA requirements on 3´0˝ (914mm) interior door
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Delay Action provides additional adjustable closing time (4040 only)
- Designer series non-handed metal cover provides smooth contoured look



- Metal cover available
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available



Many of the 4000 Series Closers include the **LCN® FAST™ Power Adjust,** *a revolutionary visual indicator for Spring Power Adjustment.*

4030/4030T SERIES CLOSERS



4030 Shown

The 4030 is a cast iron, universal closer designed specifically for interior doors in moderate traffic applications.

Features & Benefits

- Cast iron cylinder offers proven durability
- Forged steel main arm, multiple arm options
- Heat-treated steel pinion
- UL/cUL listed for self-closing, fire-rated doors without hold open
- Non-sized (1-4) 4031 cylinder for exterior doors to 36″ (914mm) and interior doors to 48″ (1219mm)
- Closer mounts hinge side, top jamb and parallel arm, on either right or left swinging doors
- Size one cylinder meets ADA requirements on a 3´0″ (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid minimizes seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

4000T SERIES CLOSERS



4000T Shown

The 4000T Series is LCN's heavy-duty track closer designed specifically for interior pocket doors in institutional and other rugged high traffic applications.

Features & Benefits

- Cast iron cylinder offers proven durability
- Forged steel arm
- Double heat-treated steel pinion
- UL/cUL listed for self-closing, fire-rated doors without hold-open
- 4000T provides wall pocket installation for fire/life safety in an aesthetically pleasing application – use SEM7850 wall magnet for complete installation
- Uses modified 4040 cylinder which has exceeded 10 million cycles in independent testing
- Non-handed
- Sized cylinders for interior doors to 4´0″ (1219mm)
- Closer used for pocket installation
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Metal cover available
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

= Complies with ADA Accessibility Guidelines

SEM7820/SEM7830/SEM7840/SEM7850 MAGNETS



SEM7830 Shown

The Sentronic® SEM7800 is a series of heavy duty, electrically controlled door holding magnets. Magnets are fail safe and hold until the current is interrupted. A manual door closer is used to control and close the door. A choice of floor, recessed wall or surface mounted wall magnets are available.

CONFIGURATION

- SEM7820: Floor mounted magnet
- SEM7830: Surface wall mounted magnet
- SEM7840: Low profile recessed wall-mounted magnet
- SEM7850: Standard profile recessed wall-mounted magnet

Features & Benefits

- 7800 Series magnets are shipped with a screw pack for attachment of the door mounted armature
- Available in Aluminum or Dark Bronze finishes
- Wall units should be mounted per template instructions
- Suitable for use in pocket installations

Available Options

- All SEM magnets are available in either 24V or 120V (please specify)
- Available in two standard finishes – Aluminum or Dark Bronze

 = Conforms to life safety code NFPA 101

3130SE/4040SE SERIES HOLDER/CLOSERS



4040SE Shown

The 4040SE SENTRONIC® is a heavy-duty, non-handed, non-sized closer/holder designed to provide single point hold-open for fire and smoke barrier doors. The door is held open until current interruption releases the holding mechanism and the door closes. The single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, track functions and installation accessories meet virtually all life safety requirements.

This series is UL listed for smoke barrier or labeled fire doors and cUL listed for self-closing doors without hold-open. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

Features & Benefits

- Cast iron cylinder offers proven durability
- Non-sized cylinders for interior doors to 4´0˝ (1219mm)
- Hold-open force is adjustable
- Momentary on/off switch board assembly for testing door release also provides over-voltage protection, field replaceable
- Functions as a full rack and pinion closer when hold-open is not engaged or current is interrupted
- Closers to mount on either push or pull side of the door (4040SE)
- Closer can be concealed (3130SE)
- Non-handed
- Concealed or surface wiring
- Interfaces with alarm systems. *Consult factory* for full details
- Seven standard powder coated finishes available on cover and arm
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Metal cover available
- Double egress arm available (4040SE only), consult factory
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

2310ME/4310ME/4410ME SERIES HOLDER/CLOSERS



4310ME Shown

The 2310ME/4310ME/4410ME SENTRONIC® is a heavy-duty, electrically controlled closer/holder designed to provide infinitely adjustable hold-open for fire and smoke barrier doors. Door is held open until current interruption releases mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, cylinder functions and installation accessories meet virtually all life safety requirements.

This series is UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

Features & Benefits

- Sized cylinders for interior doors to 4´0˝ (1219mm)
- Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted with Swing-Free arm engaged
- Handed for right or left swinging door
- ME Series available in hinge side mount, stop face mount or concealed in frame
- Concealed or exposed electrical connections
- Built-in "On/Off" switch controls hold-open function
- Swing-Free arm allows door to be moved without door closer resistance (4310ME only)
- Interfaces with fire alarm systems. *Consult factory*
- Seven standard powder coated finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Optional hold-open bypass feature available
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

= Conforms to life safety code NFPA 101

4310HSA/4410HSA SERIES HOLDER/CLOSERS



4310HSA Shown

The 4310HSA/4410HSA Series offers an electrically controlled closer/holder designed to provide easy passage for groups of pedestrians through high traffic doors. Pedestrians, moving through the doorway, trigger the built-in scanner. When the door is opened to 80° or more, the door is electrically held open to minimize wear and tear on applied door hardware. After the last pedestrian in a group passes through the doorway the system timer releases the hold-open, closing the door under control of the heavy duty closer. Single lever (track) arm closer is specifically designed for pull-side mounting. Choice of finishes and accessories meet virtually all high traffic installation requirements.

This series is UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

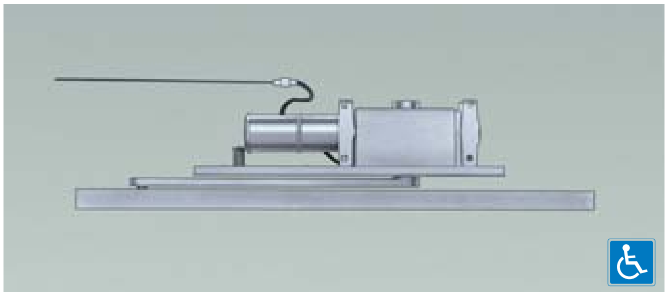
Features & Benefits

- HSA features a scanner activated hold-open function
- Hold-open period is adjustable up to 30 seconds
- Non-sized cylinders for interior doors to 4´0˝ (1219mm) or exterior doors to 3´0˝ (914mm)
- Functions as full rack and pinion door closer when current is interrupted or continuous hold-open is not engaged
- Handed for right or left swinging door
- HSA Series can be mounted hinge side or stop face
- Concealed or surface wiring. 24VAC/DC input only. 120VAC input requires 4040SE-3210 transformer
- Built-in "On/Off" switch provides continuous hold-open function
- Seven standard powder coated finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

2210/2210DPS SERIES CLOSER



2210DPS Shown

The concealed 2210 Series, heavy-duty, high security track closer features complete concealment with special components to minimize tampering and vandalism. Forged steel single lever arm and heavy steel mounting plate are designed for correctional, vandal prone, institutional and other high traffic applications. A choice of finishes and cylinder functions meet correctional and vandal resistant requirements.

Features & Benefits

- Cast iron cylinder offers proven durability
- Forged steel main arm
- Double heat-treated steel pinion
- UL/cUL listed for self-closing, fire-rated doors without hold-open
- Sized cylinders for interior doors to 4´6˝ (1372mm) and exterior doors to 3´6˝ (1067mm)
- Closer mounts in head frame
- 10 year warranty (2210). 2 year warranty (2210DPS)
- Size one cylinder meets ADA requirements on a 3´0˝ (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Optional door position switch (DPS)
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish (2210 only)
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

= Complies with ADA Accessibility Guidelines

4210/4210T/4510/4510T SERIES CLOSERS



4210 Shown

The 4210/4510 Series is a heavy-duty, high security closer with special components to minimize tampering and vandalism. Forged steel double lever arms and heavy gauge metal security covers are designed for correctional, vandal prone, institutional and other high traffic applications. The closer has passed 10,000,000 cycles in independent testing. A choice of finishes and cylinder functions meet correctional and vandal resistant requirements.

Features & Benefits

- Cast iron cylinder offers proven durability
- Forged steel main arm
- Double heat-treated steel pinion
- UL/cUL listed for self-closing, fire-rated doors without hold open
- Sized cylinders for interior doors to 5´0˝ (1524mm) and exterior doors to 4´0˝ (1219mm)
- Non-sized cylinder adjustable for interior doors to 4´6˝ (1372mm) and exterior doors to 3´6˝ (1067mm)
- Closers to mount hinge-side, stop-face or parallel mount side
- Handed for either right or left swinging door
- Size one cylinder meets ADA requirements on a 3´0˝ (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

330/3030/3130 SERIES



3130 Shown

The concealed 330/3030/3130 Series is designed to mount in a 1 3/4" interior door. The double lever arm version provides superior door control and the choice of finishes and arm functions meet virtually all architectural requirements.

Features & Benefits

- Sized cylinders (330 or 3030) for interior doors to 4´0˝ (1219mm)
- Sized cylinders (3130) for interior doors to 3´2˝ (965mm)
- Handed for right or left swinging doors
- Size one cylinder meets ADA requirements on a 3´0˝ (914mm) interior door
- Consult factory for installations with pivots
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

2010/5010 SERIES



2010 Shown

The concealed 2010/5010 Series offers a heavy-duty closer designed for institutional, high traffic or other applications exposed to weather or abuse. The double lever arm version provides superior door control and a choice of finishes, cylinder functions and arm functions that meet virtually all architectural requirements.

Features & Benefits

- Sized cylinders for interior doors to 5´0˝ (1524mm) and exterior doors to 4´0˝ (1219mm)
- Handed for right or left swinging doors
- For hollow metal or wood door and frame
- Aluminum frame requires minimum 4˝ (102mm) x 4˝ (102mm) tube
- Size one cylinder meets ADA requirements on a 3´0˝ (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

= Complies with ADA Accessibility Guidelines

2030/5030/6030 SERIES



2030 Shown



The concealed 2030/5030/6030 Series PACER® is a heavy-duty closer designed to fit in a narrow, minimum 1-3/4" aluminum transom. The double lever version provides superior door control and the choice of finishes and arm functions meet virtually all architectural requirements.

Features & Benefits

- Sized cylinders for interior doors to 5´0˝ and exterior doors to 4´0˝
- Handed for right or left swinging doors (2030/5030)
- Aluminum frame requires minimum 1-3/4˝ (44mm) x 4-1/2˝ (114mm) tube (5030)
- Aluminum frame requires minimum 1-3/4˝ (44mm) x 4˝ (102mm) tube (2030/6030)
- Size one cylinder meets ADA requirements on a 3´0˝ (914mm) interior door
- Double acting closer available (6030)
- Seven standard powder coat finishes available
- All-weather fluid eliminates seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

= Complies with ADA Accessibility Guidelines

1460/1460T SERIES



1460 Shown

Designed for maximum versatility, the 1460 is available with multiple cover options and can be used for both commercial and institutional applications. This fully universal closer offers a wide variety of options and is fast and accurate to install.

Features & Benefits

- Cast iron cylinder offers proven durability
- Slim line cover is standard
- Non-sized (1-6) cylinder is adjustable for interior doors to 5´0″ (1524mm) and exterior doors to 4´0″ (1219mm) and non-handed
- Closers to mount hinge side, top jamb and parallel arm
- Non-handed
- Rotational indicator dial helps installer apply proper spring power (1460 only)
- Size one cylinder meets ADA requirements on a 3´0″ (914mm) interior door
- Seven standard powder coat finishes available
- Peel and stick template for easy installation
- UL/cUL listed for self-closing, fire-rated doors without hold open
- All-weather fluid eliminates seasonal adjustments

Available Options

- Delay Action provides additional adjustable closing time (1460 only)
- Multiple cover options include; Smooth Slim line (EC), Full Cover (FC) and Designer Series (DS)
- Full Cover provides complete cylinder enclosure
- Designer Series non-handed metal cover provides contoured look



- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available (must use Designer Series (DS) cover)

= Complies with ADA Accessibility Guidelines

QUEST® 1370 SERIES



1370 Shown

The LCN Quest® 1370 Series is the "Fastest Closer Ever Installed". The LCN Quest features a contemporary design with the unique Rapidor™ mounting bracket, stick-on installation templates, self-reaming & tapping screws, as well as easy to use mounting instructions. The 1370 is designed for use on narrow 1-3/4" head frames.

Features & Benefits

- Cast iron cylinder offers proven durability
- Non-sized 1371 cylinders for interior doors to 4´6″ and exterior doors to 3´6″
- Non-handed
- Closers to mount hinge side, top jamb and parallel arm
- Size one cylinder meets ADA requirements on a 3´0″ interior door
- Unique Rapidor mounting bracket and peel and stick template provides quick and easy installation
- Features self-reaming and tapping fasteners for aluminum and other metal doors
- Seven standard powder coat finishes available
- All-weather fluid eliminates seasonal adjustments
- UL/cUL listed for self-closing, fire-rated doors without hold open

Available Options

- Delay Action provides additional adjustable closing time
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes

1070 SERIES



1070 Shown

The 1070 is a cast iron closer that fits the most common commercial footprint. This economical closer is designed for use on narrow 1-3/4" head frames.

Features & Benefits

- Cast iron cylinder offers proven durability
- Non-sized 1071 cylinders for interior doors to 3´2″ and exterior doors to 2´6″
- Sized 1074 or 1075 cylinders for interior doors to 4´6″ and exterior doors to 3´6″
- Non-handed
- Closers to mount hinge side, top jamb, and parallel arm
- Size one cylinder meets ADA requirements on a 3´0″ interior door
- Features the most common footprint - retrofits are made easy
- Seven standard powder coat finishes available
- UL/cUL listed for self-closing, fire-rated, doors without hold open

Available Options

- Optional Slim line cover
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes

♿ = Complies with ADA Accessibility Guidelines



What is ADA?

The ADA is a civil rights law, not a building code. This act is designed to provide protection for people with disabilities. The law is divided into four major titles that prohibit discrimination against people with disabilities in Employment (Title I), Public Service (Title II), Public Accommodations (Title III) and Telecommunications (Title IV). Title III concerns doors and door control.

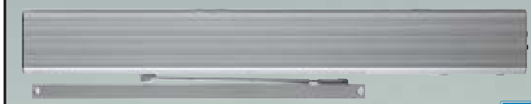
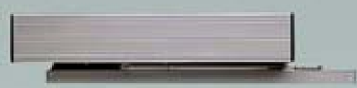
What is the intent of ADA, Title III? Essentially, owners of certain types of buildings must remove barriers and provide people with disabilities with access equal to, or similar to, that available to the general public.

How does ADA affect a building's entrance? The ADA defines an "accessible" opening which means, among other things, providing a door with a minimum 32˝ (813mm) clear opening, easily manipulated handles, a maximum opening force, a minimum closing time and capable of opening to at least 90°.



LCN ADA Solutions

- **The proven standard in schools and healthcare facilities for over 25 years!**
- **Six distinct low-energy products to meet all ADA applications**
- **Unique fast and accurate installation features**
- **Easy-to-adjust smart diagnostic controls**
- **Easily retrofitted into existing doors and frames as well as new construction**

APPLICATION GUIDE	Design & System	Use		Traffic			Durability	
		Primary Use	Secondary Use	High	Medium	Low	Heavy	Standard
AUTOEQUALIZER™ - ELECTRIC  4630 Shown	Electro Hydraulic	Manual	Automatic	✓	✓	✓	✓	✓
AUTOEQUALIZER™ - PNEUMATIC  4810 Shown	Pneumatic Hydraulic	Manual	Automatic	✓	✓	✓	✓	✓
SENIOR SWING®  9540 Shown	Electro Mechanical	Automatic	Manual	✓	✓	✓	✓	✓
MIDDLE SWING®  9740 Shown	Electro Mechanical	Automatic	Manual	✓	✓	✓	✓	✓
ASTRO SWING®  9340 Shown	Electro Mechanical	Automatic	N/A	✓	✓	✓	✓	✓
BENCHMARK®  9140 Shown	Electro Mechanical	Automatic /Manual	Automatic /Manual		✓	✓		✓

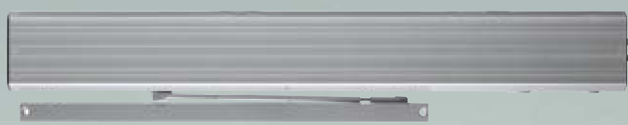
= Complies with ADA Accessibility Guidelines

TRAFFIC LEVEL GUIDE

= HIGH TRAFFIC APPLICATIONS = MEDIUM TRAFFIC APPLICATIONS = LOW TRAFFIC APPLICATIONS

4630/4640 SERIES

AUTOEQUALIZER™ - ELECTRIC



4630 Shown

SMART & RELIABLE

The 4630/4640 AUTO-EQUALIZER™ is LCN's Smart & Reliable electrically powered, low-energy power operator. It provides easy access for people with disabilities, the elderly or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

SERIES IS UL AND cUL LISTED FOR SELF-CLOSING DOORS AND MEETS THE PROVISIONS OF ANSI STANDARDS A117.1, A156.19, AND THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

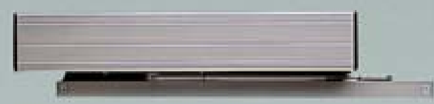
- Non-sized cylinders for interior doors to 4´6˝ and exterior doors to 3´6˝
- Non-handed
- New Digital Control Suite with on-board diagnostics
- Integrates LCN's **10 million cycle** Heavy Duty 4040 cylinder
- Complete on-board diagnosis ensures trouble-free installation
- Convenient on-board power supply to power actuators and electric strikes
- Backup factory default memory allows unit to reset to original settings in just seconds
- Quick plug-n-play connections allow quick installation of motion sensors and safety sensors
- No Destruct feature ensures longlife even in abusive applications
- Guard rails and safety mats are not required
- Meets ADA requirements (power mode only)
- Easily accessible switches provide on/off and continuous hold-open functions. Control module provides all timing and sequential door functions, electric strike controls and adjustments for opening speed and force
- Seven standard powder coated finishes available

Available Options

- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

2610/4810/4820/4840 SERIES

AUTOEQUALIZER™ - PNEUMATIC



4810 Shown

MULTI-DOOR SOLUTION

The 2610/4810/4820/4840 AUTO-EQUALIZER™ is LCN's pneumatically powered multi-door solution. This low energy power operator provides easy access for people with disabilities, the elderly, or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

SERIES IS UL AND cUL LISTED FOR SELF-CLOSING DOORS AND MEETS THE PROVISIONS OF ANSI STANDARDS A117.1, A156.19, AND THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- Non-sized cylinders for interior doors to 4´0˝ and exterior doors to 3´0˝
- Non-handed (4810, 4820, 4840)
- Handed for right or left swinging door (2610)
- Ideal for multi-door applications since cost per door leaf decreases significantly as the number of door leaves increases
- Complete unit tested to over **3 million automated cycles**, 10 times the industry standard
- Integrates LCN's **10 million cycle** Heavy Duty 4040 cylinder
- Provides quiet, efficient and reliable operation
- Pneumatic operator allows use in hazardous environments even where electrically operated devices would not be permitted
- Available "Blow Open" control box that is controlled by smoke evacuation system
- Requires control boxes with integral compressor or control box using auxiliary air supply
- Guard rails and safety mats are not required
- Meets ADA requirements (power mode only)
- Seven standard powder coated finishes available

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

= Complies with ADA Accessibility Guidelines

TRAFFIC LEVEL GUIDE

= HIGH TRAFFIC APPLICATIONS = MEDIUM TRAFFIC APPLICATIONS = LOW TRAFFIC APPLICATIONS

2800/9500 SERIES

SENIOR SWING®



9540 Shown

RELIABLE WITH POWER BOOST

The SENIOR SWING® by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING® operators, when activated, opens door automatically for wheelchair access, yet allow for manual operation for regular pedestrian traffic.

SERIES IS FULLY COMPLIANT WITH UL 325 AND 1998 AND MEETS THE PROVISIONS OF ANSI A156.19. THE 9530/9540 SERIES IS UL LISTED FOR FIRE-RATED APPLICATIONS. THE 9530/9540 SERIES ALSO MEETS THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- Power Boost Assisted closing assures secure latching regardless of drafts, wind gusts or pressure differentials
- Complete unit tested internally to over **10 million cycles**!
- Push'N' Go feature for automatic requirements without the added expense of optional activation accessories
- Electromechanical unit, digital with key pad for quick and easy setup
- Auto reverse on opening and closing cycle provides safety by reversing direction when coming into contact with a person/object
- Fast and easy installation
- Meets international building code requirements and ANSI A156.19
- UL approved for fire doors
- No guard rails or safety mats needed due to low energy design
- Bottom load capability for simplified field adjustability and quicker installations
- Single door, surface mounted or concealed
- Meets ADA requirements (power mode only)
- Handed product
- 36″ header length is standard. Specify length 30″ to 49″ max
- Double door header available up to 98″, specify other length 49″ to 98″ max. *Consult factory* regarding this option
- Adjustable hold-open period of 2 to 32 seconds in automatic mode
- Quick connect wiring system with Molex-type plugs allows for easy field connections

2900/9700 SERIES

MIDDLE SWING®



9740 Shown

RELIABLE WITH 8-1/2 LB. OPENING FORCE

The MIDDLE SWING® by LCN is a low-energy automatic swing door operator that is a cost-effective solution to ADA-compliance. In automatic mode, push button controls open the door automatically and permit safe, easy access for the disabled or elderly. This swing operator acts as a regular pedestrian door without automatic activation.

SERIES IS FULLY COMPLIANT WITH UL 325 AND 1998 AND MEETS THE PROVISIONS OF ANSI A156.19. THE 9730/9740 SERIES IS UL LISTED FOR FIRE-RATED APPLICATIONS. THE 9730/9740 SERIES ALSO MEETS THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- In manual mode only requires 8-1/2 lbs of opening force
- Complete unit tested internally to over **10 million cycles**!
- Push'N' Go feature for automatic requirements without the added expense of optional activation accessories
- Electromechanical unit, digital with key pad for quick and easy setup
- Auto reverse on opening and closing cycle provides safety by reversing direction when coming into contact with a person/object
- Fast and easy installation
- Meets international building code requirements and ANSI A156.19
- UL approved for fire doors
- No guard rails or safety mats needed due to low energy design
- Bottom load capability for simplified field adjustability and quicker installations
- Single door, surface mounted or concealed
- Meets ADA requirements (power mode only)
- Handed product
- 36″ header length is standard. Specify length 30″ to 49″ max
- Double door header available up to 98″, specify other length 49″ to 98″ max. *Consult factory* regarding this option
- Adjustable hold-open period of 2 to 32 seconds in automatic mode
- Quick connect wiring system with Molex-type plugs allows for easy field connections

= Complies with ADA Accessibility Guidelines

TRAFFIC LEVEL GUIDE

= HIGH TRAFFIC APPLICATIONS = MEDIUM TRAFFIC APPLICATIONS = LOW TRAFFIC APPLICATIONS

9100 SERIES

BENCHMARK®



9140 Shown

ECONOMICAL

The BENCHMARK® by LCN is an electrically powered low-energy operator. It provides easy access for people with disabilities, the elderly or the frail. Designed primarily for automatic opening applications that occasionally require manual opening. The BENCHMARK® is a cost-effective solution for retrofitting an activated or manual door.

SERIES IS FULLY COMPLIANT WITH UL 325 AND MEETS THE PROVISIONS OF ANSI A156.19. THE 9130/9140 SERIES IS UL LISTED FOR FIRE-RATED APPLICATIONS. THE 9130/9140 SERIES ALSO MEETS THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- Push 'N' Go feature for automatic requirements without the added expense of optional activation accessories
- Complete unit tested to over **3 million automated cycles**, 10 times the industry standard!
- Microprocessor control box for reliability
- Auto reverse on opening cycle provides safety by reversing direction when coming into contact with a person/object
- Available on-board power supply to power actuators, electric strikes and peripherals with optional premium control box
- No guard rails or safety mats needed due to low energy design
- Adjustable manual opening force to maximize on site adjustment requirements
- ADA compliant (power mode only)
- On/off switch included as standard
- Non-handed for either right or left swinging door
- 27″ cover is standard. Full length covers available up to 49″ for single doors

2500/9300 SERIES

ASTRO SWING®





with Motion Sensor

9340 Shown

The ASTRO SWING® by LCN is a High-Energy operator constructed to meet the stringent demands of high volume, high traffic environments. ASTRO SWING® operators allow flexible control over closing force, opening speed, backcheck speed, hold-open duration and more, all within ANSI guidelines.

SERIES IS FULLY COMPLIANT WITH UL 325 AND 1998 AND MEETS THE PROVISIONS OF ANSI A156.10. THE 9330/9340 SERIES IS UL LISTED FOR FIRE-RATED APPLICATIONS.

Features & Benefits

- Microprocessor control box for quiet efficiency
- Electromechanical unit, digital with key pad for quick and easy setup
- Adjustable opening, closing and backcheck speeds
- Tested up to 300,000 cycles
- Meets International Building Code requirements and ANSI A156.10
- Power Boost provides additional latching force
- Astro Swing operators are shipped with motor gearbox, control box, system arm, header and mounting hardware
- Handed product
- 36″ header length is standard. Specify length 30″ to 49″ max.
- Double door header available up to 98″, specify other length 49″ to 98″ max. *Consult factory* regarding this option
- Quick connect wiring system with Molex-type plugs allows for easy field connections
- High energy operators must be ordered with guide rails and safety devices CAUTION
- Must be installed by AAADM certified individuals

= Complies with ADA Accessibility Guidelines

TRAFFIC LEVEL GUIDE

= HIGH TRAFFIC APPLICATIONS = MEDIUM TRAFFIC APPLICATIONS = LOW TRAFFIC APPLICATIONS

ACTUATORS & ACCESSORIES



7910-956 shown *7910-954 shown*

HARDWIRED ACTUATORS:

Wall Mount
- Stainless steel plate
- Engraved symbol conforms to entrance accessibility codes
- Available in 6″ or 4-1/2″ diameters

Jamb Mount
- Stainless steel plate
- Mounts in door jamb as narrow as 1-3/4″

Touchless
- Triggered by movement near the face of the actuator

WIRELESS (RF) ACTUATORS:

Surface Mount
- 9V battery powered
- Stainless steel plate - 4-1/2″ diameter
- Weather resistant

Bollard Mount
- 9V battery powered
- Stainless steel plate - 6″ diameter
- Weather resistant

Handheld
- 9V battery powered

WIRELESS (RF) RECEIVERS:

Handheld
- For use with wireless (RF) actuators

SENSORS:

Motion Sensor
- Detects objects approaching or moving away from sensor

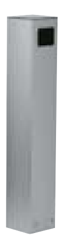
Sensor Remote Control
- Remotely adjusts settings on the motion sensor

Header Mount
- Infrared presence detector protects people on the swing side of the door

Door Mount
- Infrared presence detector protects people on the swing path of the door

ACCESSORIES:

Bollard Post
- 6″ square aluminum post; 36″, 42″, 44″ or 48″ heights
- Can be configured as a wireless (RF) or as a hardwired actuator



PNEUMATIC SYSTEM CONTROL BOXES



7982ES Shown

- **7901:** For use in a single door application or independent control of a single door in a multiple door system. Two door leaves can be operated if they are activated simultaneously. The single pneumatic circuit accepts 'normally open' inputs from hardwired or remote frequency (wireless) actuator/receiver combinations. The 7901 control box requires a separate compressor. LCN recommends the 920 series.
- **7901ES:** Same as 7901 but includes electric strike relay.
- **7902:** For independent operation of two door or four door leaves if pairs are actuated simultaneously. Two independent pneumatic circuits accept 'normally open' (N.O.) inputs from hardwired or remote frequency (wireless) actuator/receiver combinations. The 7902 control box requires a separate compressor. LCN recommends the 920 series.
- **7902ES:** Same as 7902 but includes electric strike relays.
- **7902SES:** Same as 7902 but includes electric strike relays and sequential card for operators to activate in sequence.
- **7981:** Self-contained control box/compressor combination for single door leaf applications. The single pneumatic circuit accepts 'normally open' (N.O.) inputs from hardwired or remote frequency (wireless) actuator/receiver combinations. The 7981 does not require a separate compressor.
- **7982:** Self-contained control box/compressor combination for independent or simultaneous operation of two door leaves. Two independent pneumatic circuits accept 'normally open' (N.O.) inputs from hardwired or remote frequency (wireless) actuator/receiver combinations. The 7982 does not require a separate compressor.
- **7982ES:** Same as 7982 but includes electric strike relays.
- **7982SES:** Same as 7982 but includes electric strike relays and sequential card for operators to activate in sequence.
- **7949:** Auxiliary 'blow open' box works with or without 7901 or 7902 control box and one or two pneumatic power operators. Controlled by the smoke evacuation system, the 7949 opens a door or doors to allow fresh air into the building. Normal power operator functions are not available when 'blow open' function has been activated.
- **7949ES:** Same as 7949 but includes electric strike relay.

Additional Features & Benefits
- 2 year warranty

= Complies with ADA Accessibility Guidelines

COMPLETE INGERSOLL RAND ADA SOLUTIONS

In addition to LCN Power Operators, the Ingersoll Rand family of brands offers a wide array of products that can easily help you attain ADA compliance and security needs for all areas of a door opening.

LEVERS



SCHLAGE®
FALCON®

EXIT DEVICES



VON DUPRIN®
MONARCH®

PULLS



IVES®

LATCHES



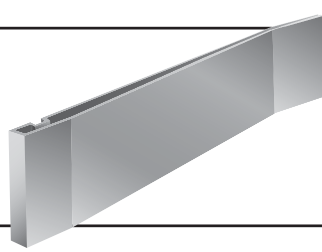
GLYNN-JOHNSON®

DOORS



STEELCRAFT®

LATCH GUARDS



VON DUPRIN®

Finish Options

LCN closers and power operators can be specified in seven standard or over 180 custom powder coated finishes. Powder coating provides superior protection against the effects of weathering and provides a durable, chip resistant finish. For information about custom finishes, plated finishes and a special rust inhibiting (SRI) process, see the LCN General Catalog or CD.

STANDARD POWDER COATED FINISHES

Colors shown are approximate. See LCN General Catalog, page 5 for exact colors.

AL (BHMA 689)
Aluminum

DKBRZ (BHMA 695)
Dark Bronze

TAN (BHMA 692)
Tan

STAT (BHMA 690)
Statuary

LTBRZ (BHMA 691)
Light Bronze

BLACK (BHMA 693)
Black

BRASS (BHMA 696)
Brass

OPTIONAL CUSTOM POWDER COATED FINISHES

180 Custom Finishes

Superior Appearance

Environmentally Friendly Process



Durable and Chip Resistant

Corrosion Resistant

Match Doors, Frames, and Hardware

OPTIONAL SRI

When powder coated closers are installed in high humidity or potentially corrosive installations like swimming pools, water treatment facilities or near large bodies of water, specify LCN SRI Pretreatment. This optional process extends the corrosion protection offered by powder coat finishes.

OPTIONAL PLATED FINISHES

LCN offers 11 plated finishes at additional cost: US 3, US 4, US 9, US 10, US 10B, US 14, US 15, US 19, US 20, US 26, US 26D

Ingersoll Rand
Security Technologies

Ingersoll Rand's Security Technologies Sector is a leading global provider of products and services that make environments safe, secureand productive. The sector's market-leading products include electronic and biometric access-control systems; time-and-attendanceand personnel scheduling systems; mechanical locks; portable security; door closers, exit devices, architectural hardware, and steel doors and frames; and other technologies and services for global security markets.

800.526.2400

www.lcnclosers.com www.ingersollrand.com

 LC-GN-1003 Rev. 11/06